#### THE NAUTILUS

Band	Ground color		
Formula	Yellow	Red	Total
00000	157	78	235
00300	159	175	334
00345	36	54	90
003(45)	2	16	18
00340	1	1	2
00305	2	4	6
00045	1	0	1
00(34)5	1	0	1
$12345 \ldots \ldots$	39	38	77
123(45)	3	15	18
(12)3(45)	1	3	4
$(123) (45) \ldots \ldots \ldots \ldots \ldots \ldots$	0	4	4
	402	388	790

# A NEW VARIETY OF HELISOMA CAMPANULATA FROM MICHIGAN\*

# BY FRANK C. BAKER

### HELISOMA CAMPANULATA MICHIGANENSIS var. nov.

*Planorbis campanulatus* var. *rudentis* Dall, Alaska Moll., p. 90, 1905 (not the true *rudentis* of Dall).

Planorbis campanulatus rudentis Winslow, Oc. Papers, Mus. Zool. Univ. Mich., 180, p. 3, pl. i, figs. 8-10, 1926. (Not of Dall.)

Shell differing from typical *campanulata* in being axially shorter, exhibiting  $3\frac{1}{2}$  full whorls on the base, the inner whorl diminishing slowly in diameter, while in the typical form there are  $2\frac{1}{2}$  whorls visible, the second of which diminishes rapidly in diameter and disappears

\* Contribution from the Museum of Natural History, University of Illinois, No. 44,

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abruptly in the umbilicus; basal whorls rounded, not subangulated.

H. 5.5; Gr. D. 15.5; Ap. H. 5.8; D. 5.0 mm. Type. (Baker coll., 1809.)

H. 5.4; Gr. D. 15.0; Ap. H. 5.8; D. 4.6 mm. *Paratype*. (Baker coll., 1809.)

Type locality: Marl Lake, Roscommon Co., Mich. Types: Baker coll. Cotypes: Univ. Mich.; Bryant Walker.

This shell has been confused with *rudentis* Dall, but an examination of a paratype kindly sent by Dr. Paul Bartsch, of the U. S. Nat. Mus., shows that this approximation is not correct, *rudentis* being higher axially, and differing in the form of the umbilicus which is, as Dall has said, "reamed out", forming a regular, broad, cone-shaped or funnel-shaped umbilicus, quite different from the small, rounded perforation in *michiganensis*. The sculpture, also, is heavier than in the new variety. The paratype of *rudentis* from the National Museum measures as follows:

H. 6.5; Dr. D. 16.0; Ap. H. 7.0; D. 4.5 mm. (U. S. N. M. 365574.) Knee Lake.

Dr. Bartsch says of this specimen "it is a trifle smaller than the type but larger than most of the other seven specimens.

Rudentis appears to be a northern form which is probably confined to the Canadian region and the Hudson Bay drainage. Michiganensis should be found in other localities in both Michigan and Wisconsin. None has been seen from Wisconsin. The new variety is likely to be confused with another recently-described variety, campanulata davisi Winslow (op. cit., p. 8, pl. ii, figs. 17–19), which is smaller than michiganensis, the whorls are more tightly coiled and four are usually visible on the base, and the axial diameter is typically somewhat less. The most obvious character of differentiation is the small size and more tightly coiled whorls, which leaves a very narrow and deep umbilicus. This variety is very abundant in a small, now dry lake, east of White Lake, Oakland Co., Mich., and is

#### THE NAUTILUS

also found in Mud Lake, Waukesha Co., Wis. In Miss Winslow's interesting and valuable revision of the *campanulata* group if the name *michiganensis* is used for *rudentis* all of the Michigan varieties will be included, although a new summary will include the true *rudentis* in addition. As the writer has stated elsewhere, the fauna of the small and large lakes of Wisconsin and Michigan appear to have each a facies peculiar to itself. From the limited data at hand on the ecology of *michiganensis* and *davisi* it would appear that the former live in the larger, perhaps clearer small lakes, while the latter live in small, more or less muddy lakes, of shallow depth.

## NON-MARINE MOLLUSKS OF VOLUSIA COUNTY, FLORIDA

### BY MAXWELL SMITH

The material which forms the subject of this paper was collected by Sydney B. Holt and the writer in March, 1927. Excursions were made in various directions from DeLand.

No collecting was done in the vicinity of Daytona Beach due to the fact that most of the hammocks have been cleared for real estate development with the result that both fauna and flora are practically destroyed, thru the agency of ax and flame.

### TURTLE MOUND

This is said to be the highest Indian Mound in the state and is composed mostly of oyster shells. It is situated about seven miles south of Coronado Beach on the "island" between the Halifax River and the Atlantic. The approach is first thru a well wooded section and later over a dune region as yet unspoiled by man. The mound is visible some distance away but is most imposing when viewed